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### 2013 PROFESSIONAL SEMINAR OVERVIEW

In February the Professional Division celebrated its first self-designed Professional Seminar, themed “*Transformational Change: New Perspectives on Consciousness*.” This, the 24th Professional Seminar, deftly conducted by Barbara Bullard, featured an excellent speaker line-up, a successful silent auction fundraiser, an intensive Guided Exploration Day, and further reorganization group processes designed to move the Professional Division toward a greater autonomy. Attendees honored recently retired Skip Atwater with a scholarship in his name to aid US military veterans to attend the Gateway Voyage. In memory of Bob Monroe’s brother Emmett Monroe, and in honor of Emmett and his wife Alice for their long friendship to the Professional Division, the PD presented Alice with an award. Author Robert Monroe, son of Alice and Emmett, recalled growing up as a nephew of Bob Monroe. [also see the TMI News, “[Action and Adventure at TMI](#).”]

This issue of the *TMI Journal* marks the first edited by Professional Division member Richard “Dick” Werling. TMI and the Professional Division extend warmest thanks and appreciation to Dick for his generous gift of time and expertise.

It is also with deep gratitude that we dedicate this issue to the memory of Carol de la Herran.

In addition to the Seminar presentations highlighted here in the *TMI Journal*, the Seminar program was packed with engaging and informative sessions—

- **Walter Stock**, then chairman of the TMI board of directors, offered an eloquent welcome to the Seminar.
- **Carol de la Herran**, then executive director and president, delivered a lively *State of the Institute address*.





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- **John Kortum**, former TMI residential trainer and medical intuitive, introduced *The Kortum Technique: Adding perceptual value by liberating the expectations of the rational mind*—a medical assessment technique that translates visual metabolic cues that correlate to human body organ and systems imbalances with 93% accuracy. He demonstrated the power of perception in the health care industry and illustrated the significance of re-examining our intellectual routines that constrain thinking.
- **Bob Holbrook**, TMI residential trainer and director of technology, presented the *TMI Tech Talk: SAM and More*. He discussed the analysis and development of the Spatial Angle Modulation (SAM) technology, version 2.0. The result—some exciting breakthroughs and opportunities for future consciousness tools. Holbrook is also presently working with individuals in the areas of addiction and post traumatic stress disorder.
- *Around the World*, with **Phil Davidson, Jose Sanchez Garcia, Thomas Hasenberger, Linda Leblanc, Luigi Sciambarella**, included an international panel discussion showcasing some of the exciting TMI Outreach, research, and education occurring globally.
- **W. J. Ross Dunseath, PhD**, assistant professor of research at the [Division of Perceptual Studies \(DOPS\)](#), University of Virginia, presented *Psi Research at the MC Squared Program*. In 2011, TMI and DOPS began a collaboration in the study of psychokinesis (PK). At the DOPS neuroimaging lab, a central goal is to document psi performance and identify physiological conditions conducive to success. The [MC<sup>2</sup>-program](#) at TMI offers a tremendous resource for studying applied PK, allowing DOPS access to experimentation with talented and motivated groups and individuals. Using instrumentation constructed at DOPS for the sensing of PK events, three experimental sessions with MC<sup>2</sup> groups have been run so far. The resulting data has been useful in the continuing development of new PK instrumentation and signal processing methods at DOPS. The results of the MC<sup>2</sup> experimental sessions will be presented, with examples of the signals obtained and statistical results.
- **Camden C. Danielson**, a partner at MESA Research Group, spoke on *The Development of Global Leaders: Implications of the Study of Long-Term Participation in TMI Programs*. Every age confronts some collective degree of psychic disturbance in the rise of a new or modern way of life that challenges an older, established understanding of the nature of things. However, given the speed of economic and technological development across the globe today, the clash of values is on a scale never seen before. Leaders, like the organizations for whom they provide guidance and direction, face the challenge of adapting their understanding of the world when their worldview is no longer sufficient to solving the problems they face. The qualities requisite to leading in times of an uncertain future, such as our own, show up in the participants of [the long-term] study.
- **James Lane, PhD**, TMI research director, looked to the future with *TMI Research Directions*. Lane extended an invitation to the membership to contact him with research interest. His vision of the role includes developing TMI's research portfolio, encouraging and supporting people worldwide to conduct research using our tools and technologies, and establishing TMI as the focal point, the hub—the authority—in the application of binaural stimulation technologies.
- Under the adept facilitation of **Allyn Evans and Becky Carroll**, the day-long **Reorganization Group Processes** aided the Professional Division in taking its next evolutionary step.
- During the **Guided Exploration Day** participants experienced SAM 2.0 exercises as well as Hemi-Sync, aptly led by **Bob Holbrook**.
- TMI's outstanding **hospitality staff** created a delightful feast for the **closing festivities** up at Roberts Mountain Retreat. Big thanks to **Suzanne Morris** for again providing a lovely musical background with her hammered dulcimer.

## THE NEUROSCIENCE OF CHANGE



**Presented by  
Walter McFarland**

*Walter McFarland is 2013 Board Chair of the American Society for Training and Development (ASTD), the world's largest professional association dedicated to the training and development*

*profession. He was a senior vice president at Booz Allen Hamilton where he led the firm's Global Human Capital and Learning businesses; and a senior principal at Hay Management Consultants, where his business focus was human capital, learning, and change.*

*His career has been as a consultant focused on large-scale improvements in organizational performance by focusing on the human factor. His core belief is that people are the source of each organization's competitive advantage. As a consultant, McFarland has led engagements focused on transforming the Internal Revenue Service, creating the HR function of the Department of Homeland Security, and better integrating HR capabilities of the U.S. Intelligence Community. His work has earned the Hammer Award, the IRS Commissioner's Award, the Director of National Intelligence Innovation Award, and recognition from the Smithsonian Institution, among others.*

*This keynote presentation was especially important for Professional Division members working in the Organization Development field and who focus on improving individuals' abilities and creating groups and organizations that unleash competitive advantage.*

McFarland began by pointing out the great opportunities for improving organization development activities. He described how neuroscience research increases our knowledge of the brain and may be a source of new insight into the theory and practice of organizational change. In this conversation, Walter shared insights on specific attributes of the brain that inform behavior during organizational change, how current change approaches actually trigger resistance in the brain, and how key neuroscience-informed actions can improve performance of change activities.

In the past twenty-five years, neuroscientists have

gained better understanding of human nature and behavior through use of new technologies: imaging tools such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), and brain wave analysis techniques such as quantitative electroencephalography (QEEG). This new information has led to an increasing integration of psychology and neuroscience. The implications of these brain science breakthroughs are significant for PD members who are Change Practitioners. It is vital to the success of Change



Practitioners to understand two of these hard-wired systems involved in fight/flight reactions—*error detection* and *fear response*.

We now know that human behavior in the workplace doesn't work as we had thought. We have learned that evolutionary processes affect how the brain relates to Change. Five things about the brain can help Change Practitioners increase their effectiveness:

1. **The brain is focused on *surviving*** – in physical, social, and organizational contexts.
2. **The brain has developed specialized survival systems**, involving motivation, memory, error detection, and fear response. All of these systems, which have evolved over eons, operate in today's organizational environment. *Wanting* something is driven by the dopaminergic system; *avoiding* or flight response is driven by serotonin. Most importantly for those of us who help in Organization Development, *the motivation to avoid is stronger than that to approach*.

**3. The brain “hardwires” patterns of thinking.** The brain developed hardwired neural systems for surviving and navigating the external environment. Working memory (understand, decide, recall, memorize, inhibit), is located in the prefrontal cortex; and habit memory (patterns of behavior), is located in the basal ganglia. “Error signals” can trigger an **amygdala hijack**, which overwhelms working memory and creates a profound fear response and resistance to Change. In the organizational context, habits are good—they create efficiencies during normal operations; or bad—they can be very difficult and painful to change.

**4. The brain can be “rewired.”** Neuroplasticity is becoming more and more important in this work. Helping people “think better” is an emerging leadership competency.

**5. “Bad is stronger than good.”**

**2. Shape the *external* environment.** Meet external change head-on by using robust environmental scanning and futures techniques to better anticipate and shape market changes. Reduce organizational anxiety and fatigue from endlessly *following* market changes. Motivate staff to think about Change proactively and constructively. Avoid being a fast follower of changes driven by others.

**3. Shape the *internal* environment.** Make the organization a place for great thinking. Integrate Change into day-to-day business by vesting responsibility for Change in the local line people. Focus senior management on game-changing opportunities and create a brain-friendly environment.

**4. Create a change-enabled workforce.** Identify, brand, and assess Change-related competencies in the organization. Organization leaders help others think better about Change.

Summary—Five Things About the Brain	
Five Things About the Brain	Implications for Change Practitioners
It focuses on surviving	Change can threaten survival
It evolved specialized systems	Change affects multiple brain systems; <i>Change is pain.</i>
It “hardwires”	Change demands changing habits
It can be “rewired”	Neuroplasticity can be learned
“Bad is stronger than good”	Change efforts should focus on the positive

After summarizing these features of neuroscience, McFarland suggested Organization Development applications in the current volatile world.

*Imagine a new kind of organization optimized for Change—an organization that uses Change as fuel to become continuously better and more competitive. In such an organization, Change is no longer something it does, but something it is.*

Here is a neuroscience-based Change framework for organizations:

**1. Integrate Change into strategy.** He suggests that leaders link Change to the organization’s destiny by declaring the importance of Change in the context of strategy, giving Change powerful context and purpose. This linkage reduces organizational anxiety about Change and sets the stage for creating a “Change-focused culture.” Linking Change to strategy connects the dots for people.

**5. Continuously generate and celebrate short- and long-term wins.** The key is fighting *bad* through recurring experiences with *good*. Neuroscience research affirms the importance of celebration in best thinking. Short-term celebration should occur immediately after success. Long-term celebration should be tied to major milestones. Celebration helps the brain rewire Change as “wanting.”

In summary, McFarland showed that the field of organizational change has been growing and learning across its sixty-six-year history. Understanding the brain adds real insight into more effective Change leadership, better engaging people in Change, and building organizations better at Changing.





# BREAKTHROUGH CREATIVITY: A POWERFUL SYNTHESIS OF ALCHEMY, SOLFEGGIO FREQUENCIES, AND BRAINWAVE ENTRAINMENT FOR CREATING FROM HIGHER CONSCIOUSNESS

*Presented by Theresa Bullard, PhD*



*Combining a doctorate in physics and an interdisciplinary research background encompassing quantum theory, nanotechnology, origin of life studies, and crystal chemistry, Theresa Bullard embraces and epitomizes the new paradigm of synthesizing knowledge from a variety of fields to create a new synergy. Following a lifelong path of exploring ancient metaphysical teachings, consciousness expansion, subtle energies, alchemy, and holistic medicine, she brings fresh ideas to the new study of science and spirituality. She possesses the much-sought-after ability to communicate these concepts in an inspiring and profoundly practical way that every generation from every background can understand and incorporate for real results.*

*A writer, speaker, and life-coach, Dr. Bullard has been leading programs in self-empowerment, professional performance, and personal transformation since 2002. She has assisted hundreds of people from all backgrounds in transforming their lives by realizing their unlimited potential. For more information, visit <http://www.eye-ris.org>.*

Dr. Bullard's presentation at the Professional Seminar described a systematic approach to creativity in today's world designed especially for those people who would lead us into the future. This approach to creativity accesses a higher state of consciousness *first*, realizing that all truly "new" ideas come from beyond our own limited thinking.

Once in a state of higher consciousness, we can then access the quantum view of reality and clearly choose among many possibilities in our creative thinking.

The key is not only to get outside of routine but also outside of our comfort zone—the zone in which we feel familiar and that we can control to some extent. The magic and breakthroughs we seek happen outside the comfort zone.

Dr. Bullard draws from ancient alchemical methods and understanding, blended with modern science and powerful techniques for harnessing consciousness. Shifting to a quantum paradigm will help us more consciously create, amidst the rising uncertainties, the exponential inflow of information, and the accelerated pace of change today.



Dr. Bullard shared her 7-step method, which she coined V.I.S.I.O.N.S., and consists of:

1. **Vision**
  - Getting a clear image of the subject or issue that we need to break through
2. **Illumination**
  - Shifting to a higher state of consciousness, to transcend any perceived limitations that come from the lower mind
3. **Stillness**
  - Moving into the void, to access the infinite field of potential—the source of all truly *new* ideas
4. **Ignition**
  - Igniting the spark of creativity
5. **Outburst**
  - Burst of creative ideas coming into the realm of our higher mind, where we can start to think about them and brainstorm for a new vision
6. **Nexus**
  - The new vision next becomes a nexus point around which we can start formulating a plan
7. **Success**
  - Successfully carry this plan into action and fruition

*Dr. Bullard teamed up with J. S. Epperson to create a guided imagery called [Creative Alchemy](#) that incorporates all of these elements. This new guided meditation is available through the [TMI Store](#).*

Also see “[The Seven Stages of Alchemy with Hemi-Sync](#)” by Dr. Bullard. Winter-Spring 2010 Journal.



## BECOMING OUR OWN GUINEA PIGS. A PROGRESS REPORT.



*Presented by  
Joseph Felser, PhD*

*Dr. Joe Felser has been on the faculty at Kingsborough Community College of the City University of New York (CUNY) in Brooklyn for the past fifteen years. As a philosopher, he has long been interested in the fundamental questions about*

*human existence. He authored *The Way Back to Paradise: Restoring the Balance Between Magic and Reason* (Hampton Roads, 2005) and [\*The Myth of the Great Ending: Why We've Been Longing for the End of Days Since the Beginning of Time\*](#) (Hampton Roads, 2011).*

Following is an edited and condensed version of Dr. Felser's presentation at the Professional Seminar, a progress report on his long-term study of Exceptional Human Experiences (EHEs), *Becoming Our Own Guinea Pigs*.

Prof. Felser states that The Monroe Institute (TMI) is a uniquely valuable venue for studying the links between experiences of wonder, intellectual wondering, and the potential for restoring the missing visionary base of philosophy and the culture at large. TMI is a safe laboratory for individual self-experimentation and self-inquiry, where one may indeed become one's own guinea pig.

TMI's audio technology has a proven track record for safely facilitating EHEs. The program process synthesizes the individualistic and communal aspects of EHE induction favored by the Greeks in schools such as the Eleusian Mysteries. The solitude of the CHEC unit is complemented by group work and opportunities for sharing ideas and experiences.

The distinctive "ethos" of the Institute is succinctly encapsulated in Bob's oft-repeated refrain: "Go check it out for yourself." This studious avoidance of indoctrination and dogma has an important precedent. No specific belief system was ever promulgated at

Eleusis during its two-thousand-year run. The initiates returned to their respective homelands and remained faithful to their native religious practices.

These factors make TMI an ideal venue for studying the synergy between the two aspects of wonder. What kinds of philosophical questions lead individuals to come to TMI? What types of EHEs do they have here, and what meaning do they take away from their experiences? How might that meaning change over time? What further kinds of experiences do they have or seek as a result? And how do their individual trajectories affect others around them and perhaps even the culture at large? How do they enact these changing meanings in the world? These are the kinds of questions that I have been pursuing in my study.

The study thus follows a qualitative rather than quantitative methodological model. Qualitative research seeks to articulate the subject's own sense of his or her experience in all its lived immediacy, rather than to impose upon that experience some ideal scheme or theory that aims to explain it—or explain it away.

The qualitative researcher:

- 1) Focuses on gathering information pertaining to the research participant's subjective (first-person) experiences.
- 2) Seeks data that is rich in contextual detail—such as the participant's emotional experience, relationships with others, personal mythology, etc.
- 3) Is not concerned with trying to achieve absolute objectivity through controlled experiments.
- 4) Takes note of the words, metaphors, symbols, memes, etc., used by the participant and uses them to uncover the deeper meaning that the participant's experiences have for her or him.
- 5) May not know in advance what he or she is looking for (i.e., there is no specific hypothesis being tested) or how the research will unfold but, instead, allows the research design to shift according to the data and/or circumstances that arise. The study has indeed evolved with some modifications along the way, including a widening of the pool of potential



participants, as well as modifications to the recruiting materials and the follow-up surveys.

6) Aims to make the study's findings public via a published report.

7) Strives to achieve the highest level of ethical rigor with respect to the welfare and rights of research participants. In addition to obtaining approval from both my college and the Institute's IRB (Institutional Review Board) committees, I also had to take and pass an online course on the ethics of human research in order to

Could it be that the induction of wonder and its concomitants of delight, joy, rapture, and even ecstasy might be the primary purpose or driving force behind the EHE? If so, some of our most cherished notions of spiritual "evolution" and philosophical "progress" may be questioned...

become certified by the City University of New York as a principal investigator.

The basic set-up of the study was as follows: On the final day of their TMI program, graduates received a flyer describing the study and inviting their participation. This included the direct link to the consent form on my web site. There was a follow-up email, sent via Constant Contact, several weeks later, which also had the direct link to my web site. From there, participants were directed to the Phase 1 Survey, which included general instructions and ten demographic questions, which they could elect to answer in whole, in part, or not at all; and they were asked to indicate whether they wished to be eligible for inclusion in the Phase 2 Survey, which I would send via email three months following their initial response.

Here are the six Phase 1 Survey questions:

- 1) How would you describe yourself as a person? What is your sense of self—of who and what you are?
- 2) What kinds of questions have been most important to you in your life? How have you addressed them?
- 3) Why did you decide to attend a program at The Monroe Institute (TMI)?
- 4) Describe the highlights of your experience at TMI. What episodes, interactions, or features of the program had the greatest impact on you?
- 5) How did your TMI experience affect your sense of self? Where do think this might lead?
- 6) What effect(s) has your TMI experience had on your main life-questions, or on the answers you may have obtained or sought in the past? How might this change?

Three months following their submission, those selected to participate in Phase 2 received, via email, a second consent form; a survey identical to the Phase 1 version; a set of specific follow-up questions based on their Phase 1 responses; and instructions for completing and returning the forms. The inclusion of the Phase 1 questionnaire was to allow participants to revise or add to their initial responses on their own accord. Participants could indicate their desire to participate in Phase 3.

Six months following their Phase 2 submission, selected participants were invited to participate in Phase 3. Initially, they receive an email from me containing a third consent form and what were projected as the initial questions in an ongoing, back-and-forth interview/dialogue that would be carried forward via email as long as there were questions remaining and the participant was willing to respond.

This chart tallies the number of responses since the study's inception (June 2011):

Total number of participants submitting consent form for Phase 1: 68

Total number of participants completing survey for Phase 1: 42

Total number of Phase 2 surveys sent: 30; Responses received: 14

Total number of Phase 3 invitations: 11; Responses received: 10

All of the participants who completed surveys for Phases 1 and 2 provided some portion of the requested demographic data.

I have recently been conducting a systematic study of the data as a whole, in which I look for patterns reflective of the unity or commonality of experiences, as well as the diversity, divergence, and uniqueness of individual responses.

Here are a few very preliminary impressions, to whet your appetite.

Could it be that the induction of wonder and its concomitants of delight, joy, rapture, and even ecstasy might be the primary purpose or driving force behind the EHE? If so, some of our most cherished notions of spiritual "evolution" and philosophical "progress" may be questioned, insofar as they have assumed the meaning of life to be achievement and work, with values such as play, humor, and joy being secondary. As one of my participants put it, "When you abandon the need to determine if something is or is not true, you are free to entertain any possibility." And this, she added, brings with it an exhilarating sense of "fun" as she contacts

others and they share their own experiences and thoughts, no matter how "far out."

Comments like these reminded me of the late, great mythologist Joseph Campbell's suggestion that what we're all really seeking is not an intellectual meaning for life, but rather a direct "experience of being alive,"

**I seem to explore  
deeply the notion of  
soul, full potential,  
and how to bring that  
potential here.**

in which our everyday personality makes direct contact with the deep source of our existence, "so that we actually feel the rapture of being alive."

The second impression is a finding that surprised me. A number of individuals reported that their greatest experience of wonder at TMI was *not* a spectacular OBE, NDE, or other type of otherworldly journey, but rather, what might be dubbed an "*in-the-body experience*" or IBE. These participants insisted that they had had no difficulty in the past (sometimes as far back as early childhood) inducing OBEs or other non-ordinary states of consciousness, and accepted them as a natural part of human existence. However, they indicated that they had never really felt completely at home in their physical bodies and that their previous non-ordinary-state activity was to some extent an escape from what they perceived as an unpleasant daily life. The transformation that occurred in the IBE was a sudden and often shocking embrace of physicality, relationship, and its emotional vulnerabilities; the



bittersweet pains and pleasures of embodied life; and the vital connection to the earth.

One such participant wrote:

“In Guidelines, I got the message that while going out of body was all well and good . . . I was missing an important point: that I’m *in* a body and I should take advantage of the experience because there might come a day when I’d regret not participating more in the Earth Life System . . .”

And another:

“I seem to explore deeply the notion of soul, full potential, and how to bring that potential here. Not through working my way out of karma or conditioning like I had been doing so far, but by directly connecting to soul and burning my way back into the body. Bringing it to manifestation. Like building a clear bridge. And I can also see how that has to happen at the same time as grounding and getting deeper into the materiality of this world.”

Now this kind of comment strikes me as a peculiarly interesting, and potentially very fruitful, development at this particular historical juncture.

In 1932, Carl Jung stated that our greatest challenge would be to give the reality of both consciousness and matter their equal due and to “reconcile ourselves with the mysterious truth that the spirit is the living body seen from within, and the body the outer manifestation of the living spirit—the two being really one.”

Similarly, James Hillman has noted that the ancient shamanic image of the soul’s descent or “growing down” into the world became eclipsed by the ascension model favored by Greek and biblical thinking, and also by our modern economic and psychological perspectives, in which “up” equals good, and “down” equals bad. We want to grow *up*; be *up*; experience an *upward* trend or *uptick*; climb *up* the ladder of success; etc. However, as Hillman observes, “even the tallest trees send down roots as they rise toward the light.” On this much older view, we need a deeper sense of rootedness to counterbalance, and at the same time strengthen, our higher spiritual aspirations—to burn our way back into the body, as my participant so eloquently put it.

Perhaps these IBERs are a philosophical vanguard that will lead us in a more fruitful direction—full circle. And just here a stiff dose of humility may be in order. As Dr. Stanislav Grof, the Czech-American psychiatric researcher, has observed, we may “have to admit that the basic philosophy of the Western scientific worldview is seriously wrong and that in many ways shamans from illiterate cultures and ancient cultures have had a more adequate understanding of reality than we do.”

Or, as Socrates declared, true “wisdom” means recognizing one’s own ignorance.

Well, so be it.



## SOUND AND MOVEMENT: THE ETERNAL DANCE THAT FACILITATES WHOLE-BRAIN LEARNING

Presented by Carmen Montoto



*[Carmen María Montoto](#) graduated from the University of Puerto Rico with a BA in History of Art. She also studied Home Design, Kinesiology (level I), Photo Reading and Ayurveda Massage and is a Hado Instructor, Brain Gym and TMI Outreach Facilitator. Carmen has offered conferences in Iceland, Boston Latino Institute, TMI, Cuba and Puerto Rico about Hemi-Sync® and its uses.*

*As a Member of the Professional Division, with nine university students, she generated a research project on the use of Hemi-Sync to enhance learning. With Jacqueline Mast, she organized the International Conference on Special Education in Puerto Rico.*

We all know the power of Hemi-Sync by itself. During the Professional Seminar, Carmen Montoto demonstrated the power of Hemi-Sync when combined with other tools. Since 2007, Carmen Montoto has collaborated with several universities in Puerto Rico, investigating in elementary schools the effects of sound and movement to enhance cognitive functions and facilitate whole-brain learning. The research has used combinations of Hemi-Sync, the educational kinesiology of Brain Gym®, and affirmations. The sounds used are Hemi-Sync frequency patterns, and the movements are the Brain Gym exercises. During her presentation, Professional Seminar members practiced some of the Brain Gym exercises used in the research.

Key to the exercises is the role of the inner ear, which combines sound and balance. Montoto starts with this description:



Carmen leading participants in a Brain Gym exercise.



“You can separate sound from movement; in the music of their eternal dance, matter is created and transformed. Nature in its perennial wisdom re-creates this in the brain. Entirely embedded in bone is the labyrinth of the inner ear, where sound and movement are processed together. They are part of the vestibular-cochlear system considered by Dr. Alfred Tomatis as the dynamo of the brain and the threshold to whole-brain learning.”

Brain Gym is applied educational kinesiology, which was created by Paul Dennison, Ph.D., and Gail Dennison. Brain Gym consists of twenty-six exercises and activities committed to the principle that moving



with intention leads to optimal learning. Some of the exercises recall the movements naturally done during the first years of life when learning to coordinate the eyes, ears, hands, and whole body. Teachers and students have been reporting for over twenty years on the effectiveness of these simple activities. They often bring about dramatic improvements in such areas as reading, writing, math, test taking, physical coordination, concentration, focus, memory relationships, self-responsibility, attitude, and organization skills. Ms. Montoto used the triune brain model of Paul MacLean to explain the three dimensions in which the exercises are categorized: Focus (reptilian brain), Organization (mammalian brain), and Laterality (neocortex).

## HISTORY OF THE RESEARCH

In 2007, the first of these projects was done in nine elementary schools by nine masters-degree students of the Ponce Catholic University, under the supervision of Professor Ruth Reyes, Ph.D. The results of their thesis proved that the Hemi Sync sounds enhanced the learning environment in all of the classrooms.

The second study was conducted in 2009 by Marilyn Felix, a doctoral-degree student from the Metropolitan University of Cupey (UMET). Her work showed that the results of earlier studies in several schools in Puerto Rico—using Hemi Sync and Brain Gym to enhance the learning environment and improve reading—could be verified and duplicated. Students had an improvement of 52% in their oral reading based on the standardized test that was repeated in 2010, the day they gave the standardized test called *La Prueba Puertorriqueña* that determines the level the school is placed in. The whole school practiced several Brain Gym exercises in the courtyard, plus in all the classrooms they had Hemi-Sync music playing while taking the test. The school had a 10% improvement from the previous year with one-day exposure to Hemi-Sync.

A third research project, by Joaquin Cotto, a speech pathology student, studied how Hemi-Sync improved the communication of children with autism. All the children were using Hemi-Sync and doing Brain Gym exercises. The results of his thesis were very positive.

THREE DIMENSIONS OF NEUROLOGICAL ORGANIZATION IN LEARNING	
<b>FOCUS:</b>	referring to the connection between the <b>back of the brain</b> ( <i>brain stem</i> ) and the <b>frontal lobes</b> . This helps people to know their missions in life and to keep their attention on the task. It allows one to work on the big picture as well as on the details simultaneously.
<b>CENTERING:</b>	referring to the connectors between the <b>top</b> and <b>bottom</b> parts of the brain, specifically the neocortex and the limbic system. This is also known as the mind/heart connection. These two parts of the brain, when working together, allow us to temper our emotions with reasoning, to get organized, and to integrate new information with existing knowledge.
<b>LATERALITY:</b>	relates to the neurological connections between <b>right</b> and <b>left</b> brain. When both of these parts are working together, vision and hearing are enhanced, movements are coordinated and graceful, and skills such as reading and writing become easier.

The Focus dimension is the first to be developed by Brain Gym. Objective of this dimension is to meet the individual's organic need to feel: I AM SAFE!

Brain Gym in the <i>FOCUS</i> dimension		
Determines	Functions	Brain Gym® Movements
<ul style="list-style-type: none"> <li>Attention</li> <li>Where I am in space</li> <li>Lengthening activities</li> </ul>	<ul style="list-style-type: none"> <li>Seeing, participating, comprehending</li> <li>Autonomous functions</li> <li>Opens and shuts access to higher reasoning</li> <li>Freeze, fight, or flight</li> <li>Connects to vestibular system</li> </ul>	<ul style="list-style-type: none"> <li>Owl</li> <li>Arm Activation</li> <li>Foot Flex</li> <li>Gravity Glider</li> <li>Calf Pump</li> <li>Grounder</li> </ul>

Second is the Centering dimension. Objective is to facilitate one's abilities for CONNECTION!

<b>Brain Gym in the <i>ENTERING</i> dimension</b>		
<b>Determines</b>	<b>Functions</b>	<b>Brain Gym® Movements</b>
<ul style="list-style-type: none"> <li>• Emotional intelligence</li> <li>• Where I am in relation to others</li> <li>• Energy exercises</li> </ul>	<ul style="list-style-type: none"> <li>• Stability, organizing, feeling</li> <li>• Converts short-term memory to long-term memory</li> <li>• Generates pleasure/anxiety response</li> <li>• Releases hormones</li> <li>• Interactions</li> </ul>	<ul style="list-style-type: none"> <li>• Drink Water</li> <li>• Energy Yawn</li> <li>• Space Buttons</li> <li>• Earth Buttons</li> <li>• Brain Buttons</li> <li>• Balance Buttons</li> </ul>

Third is the Laterality dimension. Objective of this dimension is to validate: I KNOW WHO I AM!

<b>Brain Gym in the <i>LATERALITY</i> dimension</b>		
<b>Determines</b>	<b>Functions</b>	<b>Brain Gym® Movements</b>
<ul style="list-style-type: none"> <li>• Higher levels of reasoning</li> <li>• Analysis and communications</li> <li>• Midline movements</li> </ul>	<ul style="list-style-type: none"> <li>• Thinking, processing, communicating</li> <li>• Interprets all senses</li> <li>• Allows complex memory/thought/reason</li> <li>• Language acquisition</li> <li>• Expression (verbal, nonverbal, written)</li> </ul>	<ul style="list-style-type: none"> <li>• Alphabet Eight</li> <li>• Neck Rolls</li> <li>• Think of an X</li> <li>• Energizer</li> <li>• Cross Crawls</li> <li>• Elephant</li> </ul>

The Focus dimension is the first to be developed by Brain Gym. Objective of this dimension is to meet the individual's organic need to feel: I AM SAFE!

Second is the Centering dimension. Objective is to facilitate one's abilities for CONNECTION!

Third is the Laterality dimension. Objective of this dimension is to validate: I KNOW WHO I AM!

The following benefits observed by researchers and teachers explains why the combination of Brain Gym and Hemi-Sync is so effective:

- They are excellent examples of whole-brain learning, used by teachers in the classroom and by students at home.
- They facilitate the communication between different parts of the brain.
- Hemi-Sync synchronizes the brain hemispheres through sound. Brain Gym activates both hemispheres through cross lateral movements.



- They can be used individually (by the student) or collectively (in a classroom). They help both teachers and students to focus more efficiently on their work, supporting accelerated learning.
- They are cost effective and very simple to use.
- They improve memory, concentration, coordination, and balance.
- They use relaxation to activate the parasympathetic system, preparing the brain for higher cognitive functions.
- They facilitate sensory integration.
- They improve reading, writing, and math, and enhance creativity.
- They have research to validate their results (Hemi-Sync has 40 years, Brain Gym 20 years).
- They use visualization and positive affirmation, providing tools to help you achieve your goals. Hemi-Sync in the Human Plus Series and some Mind Food Exercises. Brain Gym in a Brain Gym Consultation Balance.
- They help athletes achieve peak performance in sports.
- They are excellent for children with special needs (dyslexia, ADD, ADHD, autism, etc.).

## CONCLUSION

The children of the twenty-first century are growing up in a technological world that changes very fast. The skills we learn today might be obsolete tomorrow as the technology changes and new theories emerge. While rich in opportunities, the challenges it presents demand that we acquire tools and approaches that can help us relax, sleep, and learn faster.

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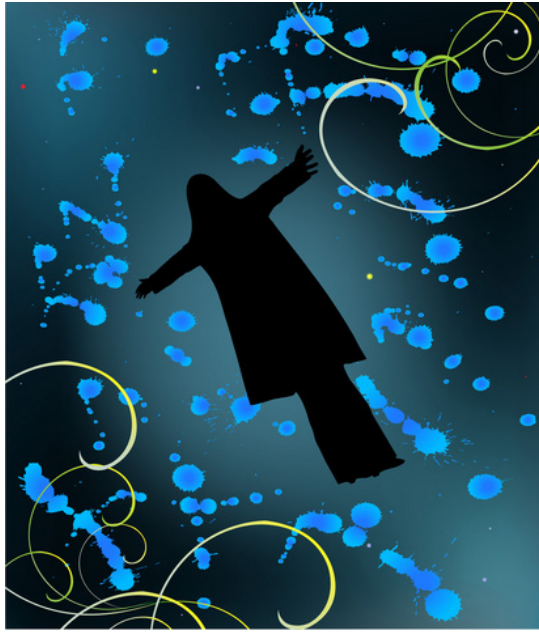
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## BOOK REVIEW



Aardema, Frederick. *Explorations in Consciousness: A New Approach to Out-of-Body Experiences*. Mount Royal, Quebec: Mount Royal Publishing, 2012. ISBN 978-0-9879119-0-2. xvii + 320 pages. \$24.95.

Reviewed by Matthew Fike, PhD

Frederick Aardema is a research assistant professor in the Department of Psychiatry at the University of Montreal who has been going out of body for over twenty years. In *Explorations in Consciousness: A New Approach to Out-of-Body Experiences*, he sets out “to bridge the gap between prescientific and scientific approaches to the OBE” (xv). In that spirit, he synthesizes a broad knowledge of the out-of-body literature with field theory from quantum physics, using his own OBEs as illustrations. Aardema’s carefully measured claims about the objective reality of the second body and the afterlife, the nonseparation of the second body, and the highly subjective relationship between imagination and perception will not elicit universal agreement. Yet his conclusions, many of which resonate with cutting-edge science, deserve careful attention, especially because they provide a basis for two very helpful chapters that suggest methods for

inducing the out-of-body state and for traveling nonphysically.

The book’s most fundamental assumption is that because “consciousness precedes matter” it “is wherever it constructs itself to be” (253, 153). Consciousness is anywhere and everywhere. The book’s most important—and controversial—conclusion is that the “second body,” “phantom body,” or “dream body” is a mental construct that does not actually go anywhere. Of greatest importance in that model of the OBE is not the mechanics of multiple detachable energy bodies, as in the theosophical tradition, but the perspective that consciousness takes. In Aardema’s words, “all that is required to establish the out-of-body state is to get up out of bed once the process of sensory retraction has been completed. You can try to leave what appears to be your physical body, but you would be trying to leave a body image that is already free of physical limitations” (63). The transition just described is parasomatic (with continuity of body awareness and a sense of separation), but transition may just as easily be asomatic (with neither body awareness nor a sense of separation).

The mind’s construction of reality even when we are wide awake suggests a “*mediational* model of reality” (237), a blending of subjective/inner and objective/outer. Ultimate reality, if there even is such a thing, is elusive at best because of the mediation by consciousness. In such a model, “experience is in fact the only true vehicle of understanding” (254), though Aardema regularly underscores the difference between experience and fact. Whereas, in daily life, we experience the things that are most possible, OBE increases the possibilities that consciousness may encounter. That is why the author devotes the middle portion of his book to a discussion of three main fields, all of which are subjective to some degree: the physical, the personal, and the collective.

In keeping with the mediational model, Aardema finds perception in the physical world to be mostly arbitrary. “Viridical perception,” or perception in the out-of-body state that corresponds to a physical reality with which one is unfamiliar, is difficult in the extreme. Still, one wonders: if difficult perception does not completely obviate objective projection into the physical world, is Aardema perhaps too cautious in claiming that “you *construct* your perception of reality in discordance with objective reality” (150)? For example, the author’s own experiments in veridical perception with cards and nails in blocks of wood are not wholly unsuccessful.

The degree of subjectivity increases as one shifts from the physical field to the personal field, which is “the inner psyche of the projector” (157). An OBE in the personal field provides “a rare three-dimensional glimpse into your own mind” (161). Here it is possible to experience not only one’s various past and future selves (a view related to the “multiple worlds” theory in quantum physics) but also the “soul” (others call it the monad; Bruce Moen calls it the disk;

Robert A. Monroe calls it the higher self or the I-There cluster). The personal field also provides opportunities to do “housecleaning” by interacting with aspects of the self, to engage in “mindscaping” of the out-of-body environment via the imagination, and to indulge in “disinhibitory behaviors” (164–76). In short, this field is where one can further individuation by confronting inner problems and acting out repressed emotions.

Whereas the physical and personal fields are highly subjective, Aardema attributes some objectivity to the collective field, which includes Focus levels 22–27. Although he grants that “the idea of life after death is not an outlandish possibility to consider” (249) and that phenomena in the collective field are more stable than in the physical or personal field, the unexpected events that happen in the collective field do not necessarily signal greater objectivity. It is more certain, however, that the collective field is the realm of “archetypes and other primordial imagery” (249), symbolic and metaphorical communication, and “repository fields of consciousness” where past and future information is stored. There is no mention of the Akashic Record or the Library, but perhaps these are among the metaphors he has in mind. In any case, Aardema is at least less uncertain about the collective field. He writes: “I feel more comfortable with the ‘reality’ of this field than any other. In fact there is little doubt in my mind that controlled access to these repository fields of consciousness by a significant number of talented individuals has the potential to lead to a renaissance in culture, politics, literature, science, technology, and art unlike any ever before seen in human history” (232).

Aardema’s positions on the afterlife and the second body clearly differ from the views of other familiar authors. Quite satisfied that the afterlife is objectively real, Moen designed his *Afterlife Knowledge Guidebook* to help others come to the same conclusion. As for some sort of energy body that separates from the physical body, Steven M. Greer relates the story in *Hidden Truth—Forbidden Knowledge* of how his wife, while wide awake, sees his spirit leave his body during his lucid dream of flying over the South American jungle. In *Cosmic Journeys* and *Soul Journeys*, Rosalind McKnight advocates a five-level system of energy bodies like the theosophical model that Aardema rejects, yet she proposes it as a way of understanding the phase shifting that he accepts. Similarly, Preston Dennett’s experiences in *Out-of-Body Exploring* also suggest that a variety of bodies participate in an OBE. As his experiences illustrate, the higher the dimension, the fewer energy bodies we take with us; and those bodies come back together as we descend.

Ironically, Aardema’s argument in *Explorations in Consciousness* subtly deconstructs itself at various points by seeming to affirm the objective separation of a second body. He mentions Monroe’s “pinching someone in the out-of-body state, which coincided with a real physical effect on the person” (145). Skeptical of such occurrences, Aardema sets out to see for himself, attempting to heal his wife’s thyroid cancer while he is out-of-body. Although one of her tumors disappears and the other is so significantly reduced in size that radiation treatment is unnecessary, he claims that “none of this proves that my out-of-body activity was responsible” (148), much less that he was in an objectively real second body. Moreover, the OBEs that he shares with his wife while she is dreaming are used to support the idea that they are merely sharing the personal field of consciousness rather than an objectively real out-of-body state. One also wonders if there is more than a mental construct afoot when “*after exiting, I stood in front of the bed for a while, watching myself sleep*” (92). Later he notes that he “*stepped outside*” of himself (251), which sounds like shifting to a higher energy body. Similarly, he states that you can “leave your second body in a third body” but quickly asserts, “Of course, you are not really in an objective third body. We are dealing with habits and constructions of reality rather than any sort of objective, energetic phenomenon” (289). One suspects that the woman whom Monroe pinched might beg to differ. As well, perhaps failure to recognize the second body’s objective reality is why Aardema receives a low score on “*world view*” during a life review in Focus 27 (212).

Aardema emphasizes instead Monroe’s scientific approach and his idea that in an OBE “you are journeying through consciousness itself” (25). In fact, Monroe’s influence permeates *Explorations in Consciousness*. The author’s first exposure to OBEs was *Journeys Out of the Body*. He adopts the term “second body,” which is Monroe’s coinage, along with his “quick-switch” method of phasing out of one area of consciousness and into another. The Focus levels are mentioned, as are the (M) Band and the H-Band of human consciousness. In addition, Aardema reports various attempts to contact Monroe while out of body. But perhaps most significantly, the six-step “vigil method” of inducing an OBE is an elaboration of Monroe’s own technique at the end of *Journeys*. The key to their shared



method is sensory reduction (mind awake/body asleep), but Aardema adds the helpful technique of setting an anchor in wakefulness and emphasizes the importance of keeping a dream journal and the potential of Hemi-Sync® to help quiet the mind. Likewise, he offers some excellent advice for traveling once the out-of-body state has been achieved, such as using the void (akin to Focus 15) to shift from one area of consciousness to another.

Since *Explorations in Consciousness* is a very important book, it is a pity that it contains a significant number of lower-order writing problems. These include missing words, dangling modifiers, and the presence of stylistic problems (the overuse of “effectuate,” “as such,” “such as, for example,” and multiple negatives in a single sentence). Some of these matters may compromise even the general reader’s experience of the text. Nevertheless, Aardema’s theory and practice of the OBE deserve careful consideration—his book is bound to become one of the classic texts on the subject.

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To order your copy of *Explorations in Consciousness: A New Approach to Out-of-Body Experiences*, visit our Store **HERE**.



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